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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,936	12/10/2003	Yasuji Ogami	246446US-2S CONT	8447
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER MAPLES, JOHN S	
			ART UNIT	PAPER NUMBER
			1795	
			NOTIFICATION DATE	DELIVERY MODE
			01/07/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/730,936	<b>Applicant(s)</b> OGAMI ET AL.	
	<b>Examiner</b> John S. Maples	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Yoshimoto et al.-US 6,180,274. (Yoshimoto) (New Rejection)

Reference is made to the abstract of Yoshimoto along with Figures 1-4, 9 and column 3, line 59 through column 5, line 48. These portions of Yoshimoto disclose a solid polymer fuel cell comprising a plurality of cells 2 including proton exchange membrane, fuel electrode/catalyst layer, oxidizer electrode/catalyst layer, a separator 3/4 comprising fuel-gas supplying passages 30, oxidant-gas supplying passages 40, a fuel gas manifold 312, a water manifold 352 including a water groove therein, wherein the fuel gas is mixed with the water in the header portion-see column 5, lines 34-48.

Applicant's arguments have all been considered but are deemed moot in view of the above new grounds of rejection.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by JP-2000-243419. ('419) (New Rejection)

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Reference is made to the English language abstract of '419 along with the machine translation thereof along with all of the drawing figures therein. These portions of '419 teach a polymer fuel cell with a plurality of unit cells as seen in Figure 2. A separator 10 includes supplying passages 400 through which fuel and water are fed through the fuel cell; the fuel supplying fuel to the fuel electrode 23 via fuel-gas inlet 113 to fuel manifold 13. Figure 3, among other drawings, depicts the water-supplying means 3 which supplies water to the passages via a manifold 11 to a groove at the top of the separator 10, which groove leads to a header at the top of all of the passages 400. On the opposite side of separator 10 are cathode passages for supplying oxidizer to the oxidizer electrode 22. The condenser 6 in '419 is the heat-recovering unit, the recovered-water supplying unit is the water pump 3 and the water-amount control unit is the controller 9. The controller 9 measures and regulates the water pressure to adjust the same-see paragraph 30 in '419; which controller also drives and controls the water pump which regulates the water flow from the recovered water as applicant has claimed.

Applicant's arguments related to this rejection have all been considered but are not deemed persuasive. Applicant argues that '419 teaches a header for mixing reactant gas with water is provided in a frame and separated from a separator 40 having reactant-gas supplying grooves. Actually, the header and the separator 40 are joined together to form one unitized unit as seen in Figure 1; which figure depicts the parts separated. However all of the parts together form one unit-a separator.

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Applicant further argues that water is supplied to a group of first channels and a group of second channels with a particular configuration of feeding water to the channels. This may be true, however as seen in Figures 3 and 4 and as set forth in paragraph 34 of '419, there are channels where both water and fuel are fed therethrough, thus meeting the claimed subject matter.

Another argument by applicant is that the presently claimed water-supplying unit can be made at the same time with the reactant-gas passages. This may be true, however, the claimed subject is met by the teachings of '419 as set forth above and does not need to be repeated again.

Finally, applicant argues that the presently claimed subject matter does not need the valve 5 of '419. Again, this may be true, however, the '419 reference meets the claimed subject matter as set forth previously in this action regardless of the fact that '419 discloses a valve 5.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of

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each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2, 4-8 rejected under 35 U.S.C. 103(a) as being unpatentable over '419 taken in view of both JP-11-073979 ('979) and JP-2000-243418. ('418) (New Rejection)

The '419 reference teaches all of the claimed subject matter except for the porous member in the water-supplying groove and for the details of the water-amount control unit with regard to the equation set forth at the end of claim 5. The '979 patent sets forth in the Abstract a porous member 3 that is located in a water-supplying groove in a polymer fuel cell. It is inherent that the pore size in the member 3 is less than 20 microns or it would have been obvious to form the same of this size to allow water transport. In any event, because the porous member of '979 functions in the same manner as applicant, it is inherent that the pore size would be the same. To have incorporated the porous member of '979 in the fuel cell of '419 would have been obvious so that the water flowing therethrough would flow in a more even and spaced manner.

Applicant's arguments relating to the above rejection based on the combination of '419 and '979 have been considered but are not convincing. As set forth above, because the porous member of '979 is used in the same manner as applicant, it is inherent that the same would comprise the claimed pore size.

The '418 reference teaches utilizing a voltmeter 40, an ammeter 42 along with other components and these taken in conjunction with the heat-recovering unit-condenser 6, the recovered-water supplying unit-the water pump 3 and the water-amount control unit-the controller 9 all set forth in '419, then the equation set forth in claim 5 is met thereby because the components set forth in both '418 and '419 result in the same function claimed by applicant of the water-amount control means controlling the supply of water to the fuel-gas supplying passages or oxidizer-gas passages in the amount as set forth by applicant.

Applicant's arguments have all been considered but are not persuasive in view of the above new grounds of rejection.

7. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 571-272-1287. The examiner can normally be reached on Monday-Friday, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John S. Maples/

John S. Maples  
Primary Examiner  
Art Unit 1795

JSM/1-2-2009